DOWNEY AIRPORT (HYDE MEMORIAL)

This report describes how your pavement maintenance management program was developed. This program was developed as part of the Network Pavement Management Program project sponsored by the Idaho Transportation Department, Division of Aeronautics. The information and data contained in this report ensures you are in compliance with the requirements of Federal Aviation Administration (FAA) Grant Assurance Number 11 which states that any airport requesting federal funds for pavement improvement projects must have implemented a pavement maintenance management program (PMMP).

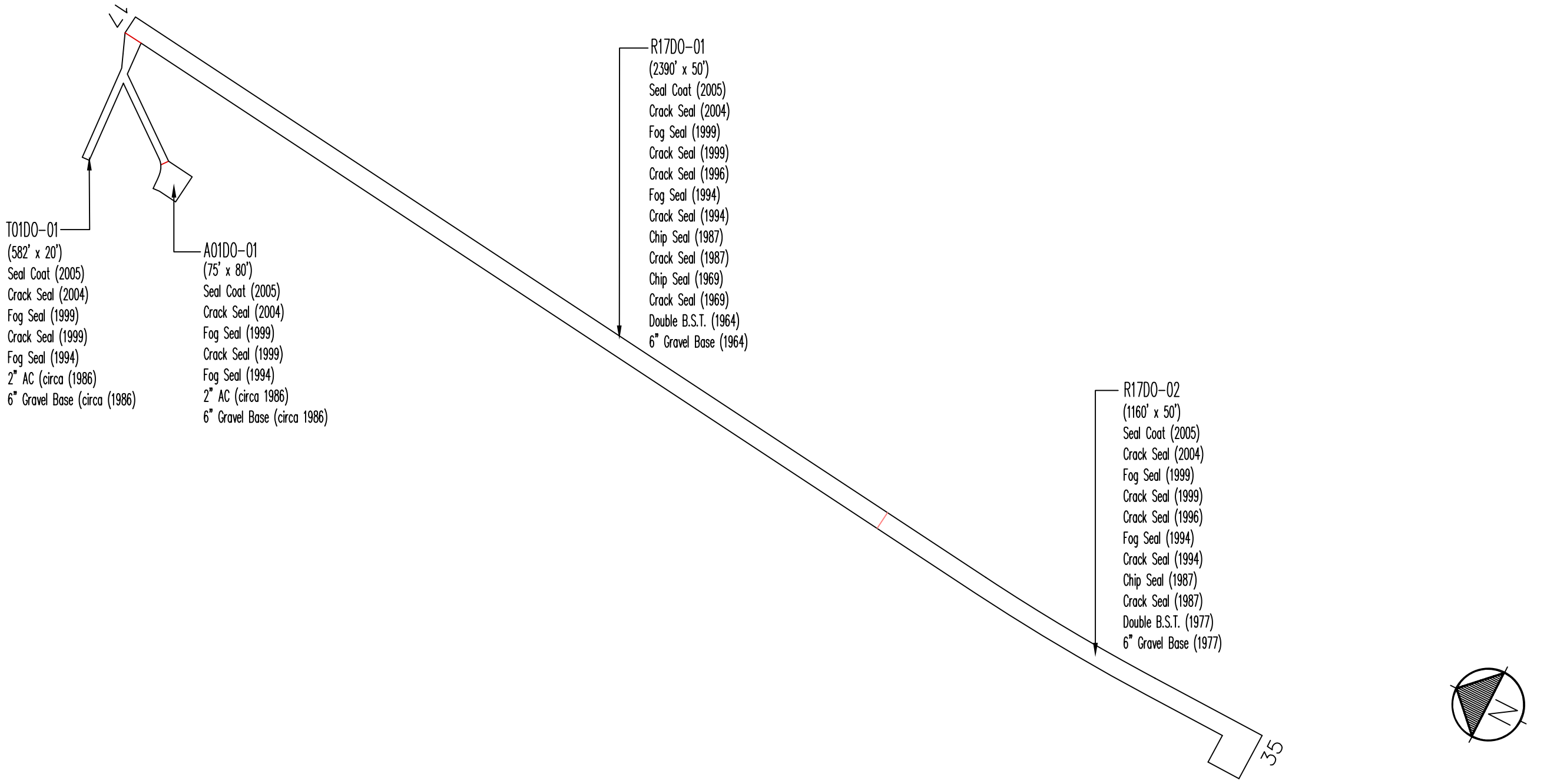
DATA COLLECTION

To determine how your pavements were constructed and their age, a records review was conducted. Figure DO-1 shows the records review results. This figure shows pavement boundaries, dimensions, pavement layer types, thicknesses and dates of construction. Table DO-1, provided in Appendix 1, contains the up-to-date cross-section information for each pavement section. The most recent construction date for each pavement can also be found in the Section Condition Report in Appendix 2. Figure DO-1, TableDO-1, and the information contained in Appendices 1 and 2 ensure that your airport complies with the "pavement inventory" requirement of FAA's PMMP guidelines.

The pavements at your airport were divided into branches, sections and sample units in accordance with the methodology outlined in the current editions of FAA Advisory Circular AC:150/5380-6, *Guidelines and Procedures for Maintenance of Airport Pavements* and ASTM D5430, *Standard Test Method for Airport Condition Index Surveys*. The branches, sections and sample units established at your airport are shown in Figure DO-2. A Branch Condition Report showing all branches, their associated areas, and area-weighted average condition is provided in Appendix 2. Additionally, the Appendix 2 Section Condition Report provides information that the Micro PAVER pavement management software uses to define each branch and section.

Using the branch, section and sample unit divisions established, a visual condition survey was conducted at Downey Airport (Hyde Memorial) on November 05, 2006. During the inspection pavement defects were identified and measured in accordance with the methodology outlined in FAA AC:150/5380-6 and ASTM D5430. Our inspection ensures your airport complies with the "detailed inspection" requirement of FAA's PMMP guidelines. After collection, the data were entered into the Micro PAVER software for analysis. These data are reproduced in the Re-Inspection Report attached in Appendix 2. Photographs of typical distresses observed during the inspections are provided in Appendix 3.

Figure DO-1. Airport Layout, Pavement and Dimensions Cross-Section. Downey Airport (Hyde Memorial)



Drawing Date: November 2006

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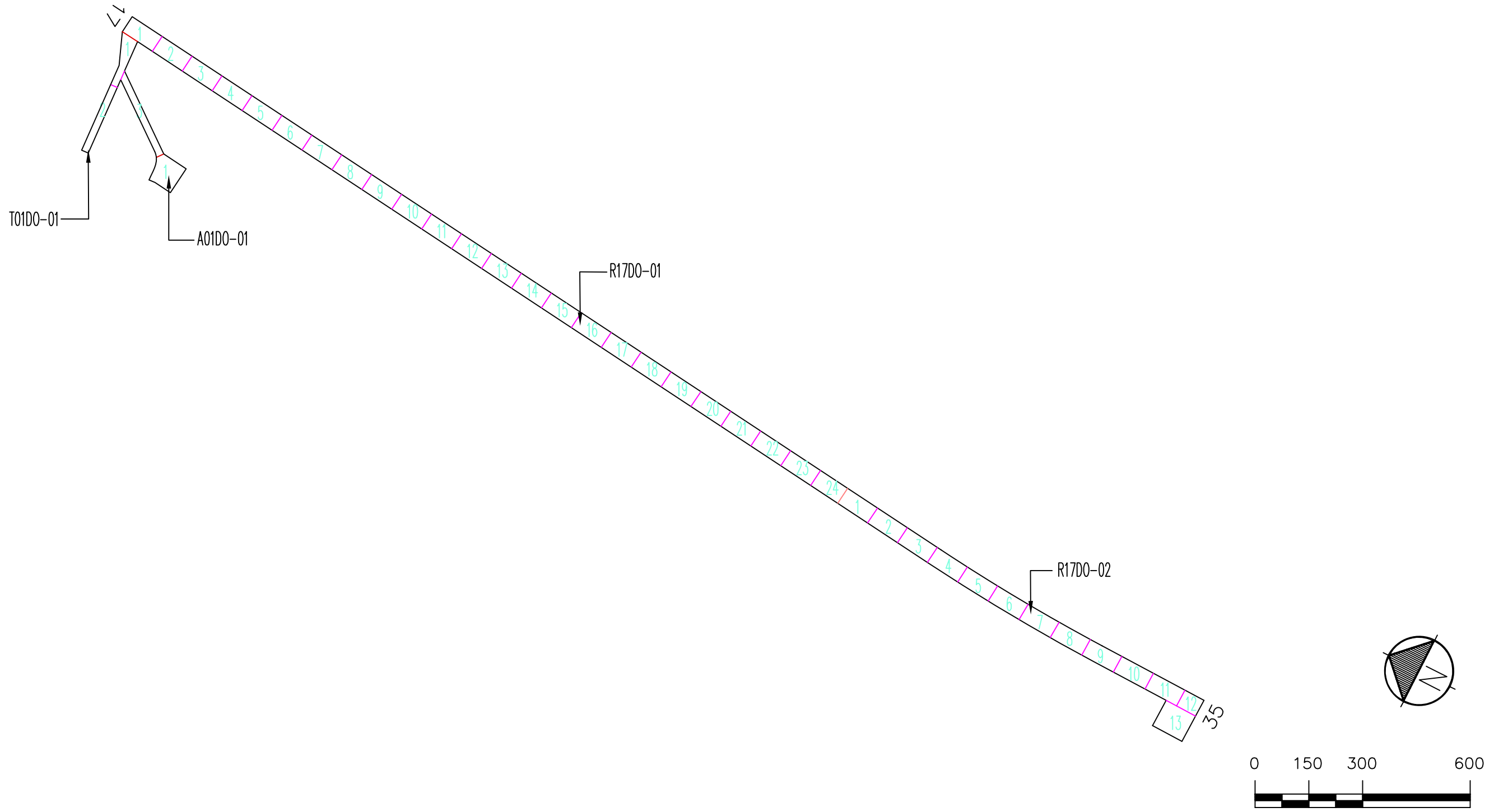
Figure DO-2. Pavement Branch, Section and Sample Unit Layout. Downey Airport (Hyde Memorial)



Drawing Date: November 2006

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The Micro PAVER database updated during this project ensures your airport complies with the “record keeping and information retrieval” requirements of FAA’s PMMP guidelines.

RESULTS

Using the data collected during the visual inspection, the Micro PAVER software calculated a Pavement Condition Index (PCI) for each pavement section inspected by averaging the PCIs for inspected sample units. Using each section‘s PCI, a Pavement Condition Rating (PCR) was assigned. The PCIs and associated PCRs from this inspection are shown in Table DO-2. This table also contains projected PCIs for 2011 and 2016 based on pavement deterioration models developed by Micro PAVER using the inspection data from pavements in Idaho having the same surface types. The Branch Condition Report in Appendix 2 summarizes current pavement condition by branch while the Section Condition Report in Appendix 2 lists pavement condition by section. The current PCR is shown graphically in Figure DO-3.

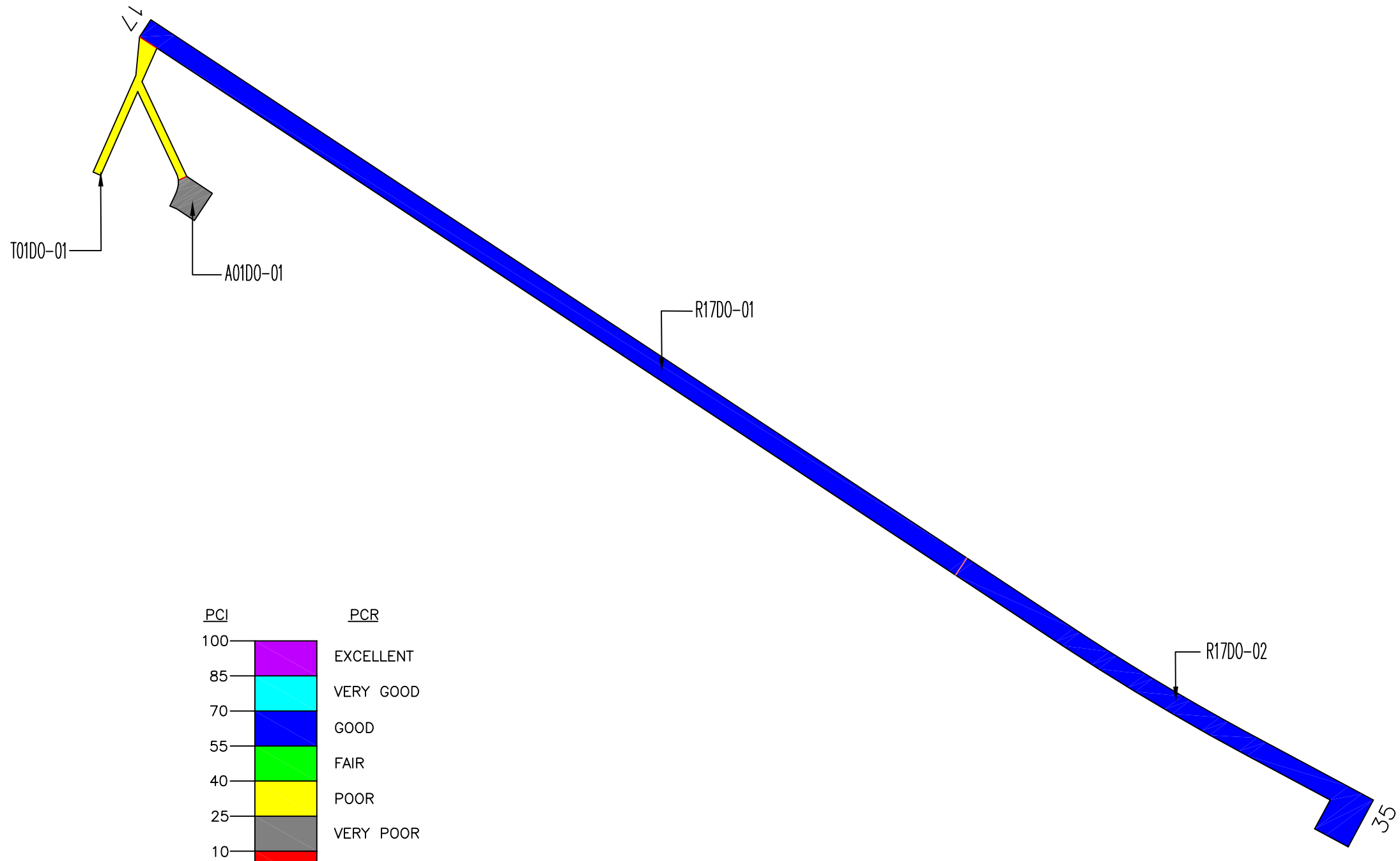
Table DO-2. Present and Future Pavement Condition Indices.

Branch	Section	2006		2011		2016	
		PCI	PCR	PCI	PCR	PCI	PCR
A01DO	01	18	Very Poor	13	Very Poor	8	Failed
R17DO	01	60	Good	45	Fair	43	Fair
R17DO	02	65	Good	45	Fair	43	Fair
T01DO	01	29	Poor	25	Very Poor	21	Very Poor

Section PCIs at the airport range from a low of 18 (a PCR of “Very Poor”) to a high of 65 (a PCR of “Good”). The area-weighted average PCI for all airport pavements is 58, corresponding to an overall PCR of “Good”. Figure DO-4 shows how much pavement area is associated with each Pavement Condition Rating category and also shows pavement condition distribution from the inspections conducted in 1996 and 1999. A graphical representation of the projected PCRs presented in Table DO-2 is shown in Figure DO-5.

The primary distresses observed during the inspection were block cracking, weathering/raveling, longitudinal and transverse cracking, alligator cracking, rutting, and patching with isolated occurrences of depression.

Figure DO-3. Pavement Condition in 2006. Downey Airport (Hyde Memorial)



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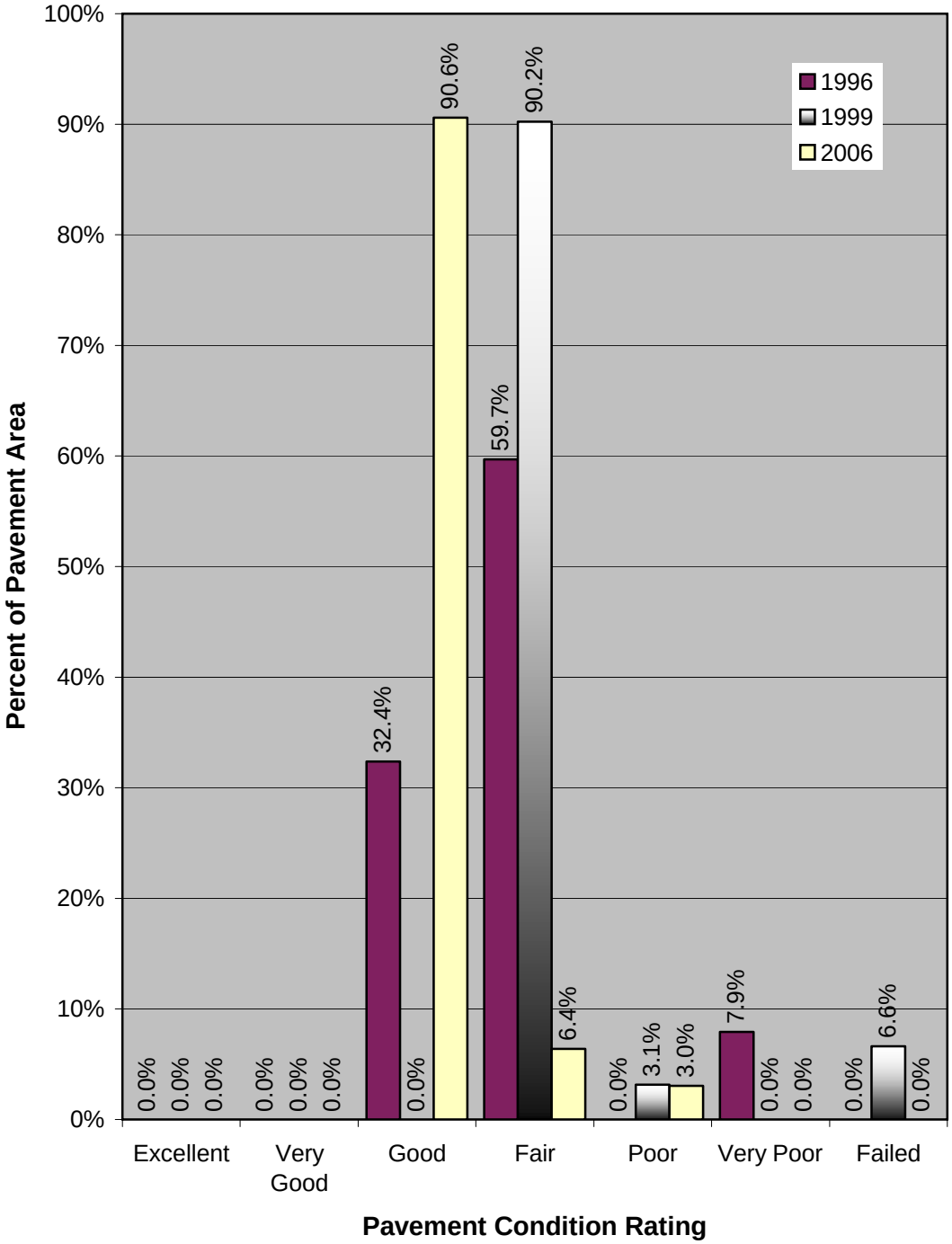
Drawing Date: November 2006

Figure DO-4. Distribution of Pavement Condition
Downey Airport (Hyde Memorial)



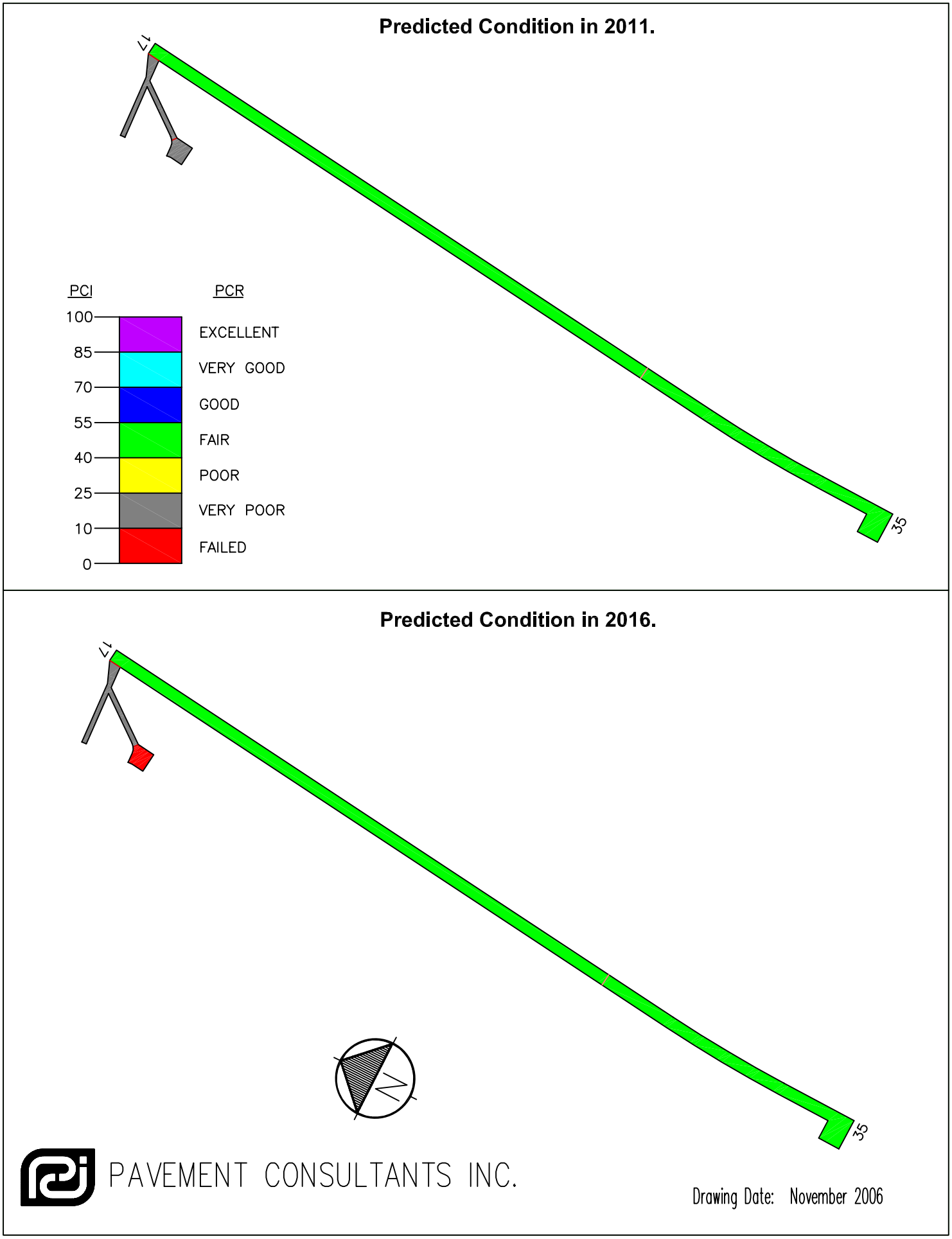


Figure DO-5. Future Pavement Condition.

RECOMMENDATIONS

Data collected during the visual condition survey were used by the Micro PAVER software to generate the Network Maintenance Report contained in Appendix 4. This report identifies, for each pavement section, the recommended localized maintenance activities that should be completed to repair the defects observed during the visual inspection. The repair quantities identified in the report were extrapolated to cover the entire pavement section, based on the inspected sample units. If the repair activities identified are completed, the pavement deterioration rate will slow.

The localized maintenance activities to be applied are selected by the Micro PAVER software based on the Maintenance & Repair (M&R) policy established for the Idaho airport system. The report results indicate that, over the entire airport, the following quantities of localized maintenance are needed:

- 350 linear feet of asphalt concrete crack sealing.
- 50 square feet of asphalt concrete shallow patching.
- 3,235 square feet of asphalt concrete deep patching.

The Micro PAVER software also can identify and schedule recommended global (applied over an entire section) maintenance activities such as fog seals, slurry seals and other surface treatments, as well as major rehabilitation activities such as asphalt concrete overlays and complete reconstruction. To determine when a pavement section requires global maintenance or rehabilitation, Micro PAVER uses the pavement deterioration models developed during this project. These models are used to estimate future pavement condition and to schedule global maintenance and rehabilitation recommendations based on a trigger PCI.

During this project a 5-year program outlining recommended global maintenance and rehabilitation was developed. The program begins in 2007. These recommendations are presented in Table DO-3, which identifies the pavement section requiring rehabilitation, the year the action should be completed, the type of action, and an associated cost. This information is also presented graphically in Figure DO-6.

Table DO-3. Five-Year Global Maintenance and Rehabilitation Plan.

Year	Branch	Section	Action	Area (sf)	Unit Cost ($/sf)	Total Cost ($)
2007	A01DO	01	Reconstruct with 2" AC, 6" Gravel Base	6,186	$2.14	$13,238
	R17DO	01	2" AC Overlay	119,500	$1.00	$119,500
	R17DO	02	2" AC Overlay	65,450	$1.00	$65,450
	T01DO	01	Reconstruct with 2" AC, 6" Gravel Base	13,056	$2.14	$27,940
					2007 Total	$226,128
					TOTAL	$226,128

If the global maintenance or rehabilitation activities recommended in Table DO-3 are not completed, the localized maintenance activities identified in the Network Maintenance Report (Appendix 4) for that section should be completed. Additionally, for those sections not listed in Table DO-3 as requiring global maintenance or rehabilitation, the localized maintenance activities outlined in the Network Maintenance Report should be completed. By completing the localized maintenance activities, pavement condition is improved, life is extended, deterioration is slowed and the length of time until major repair or rehabilitation is required is increased.

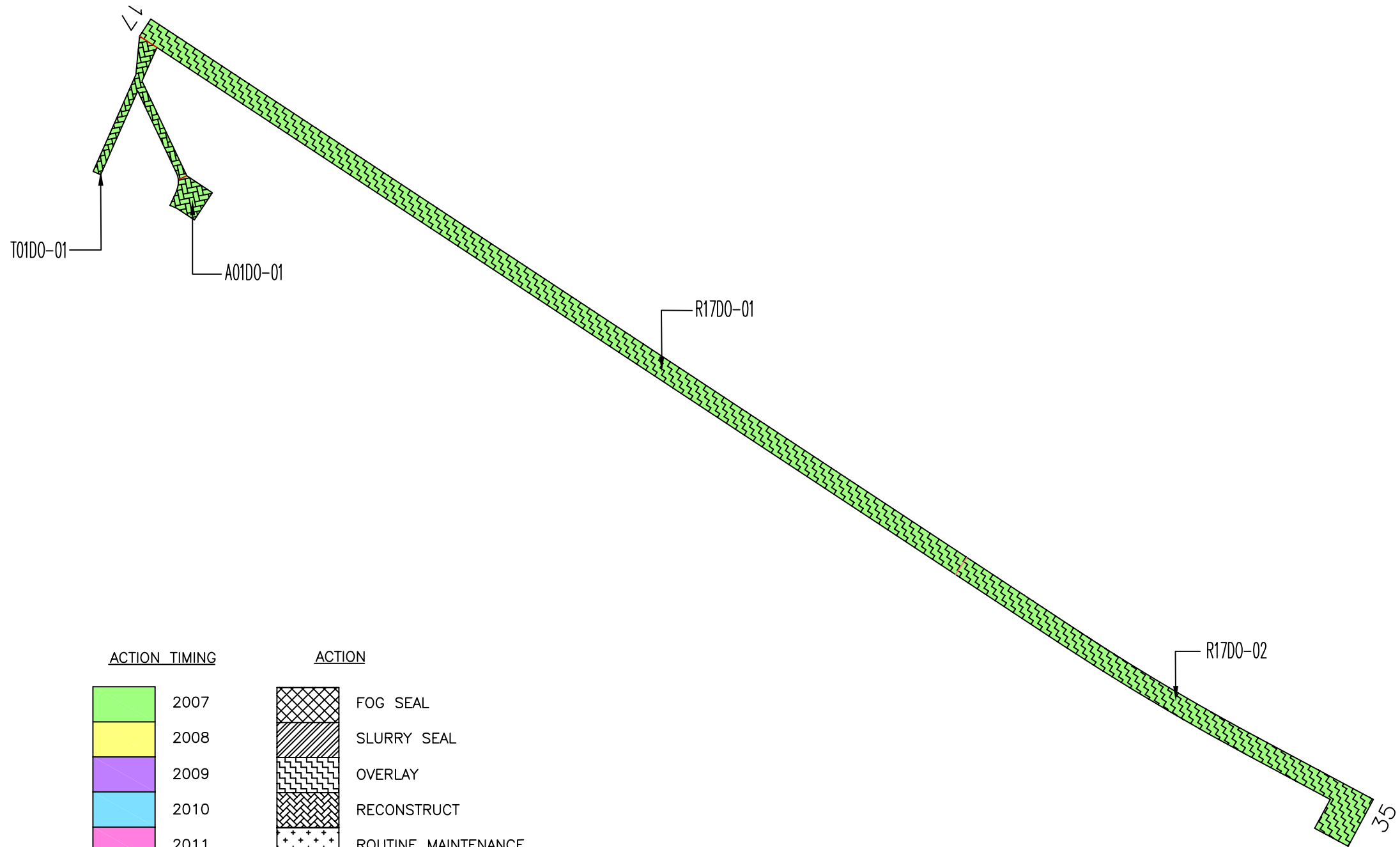
INSPECTION SCHEDULE

To comply with the inspection schedule requirement of FAA Grant Assurance Number 11, a detailed visual inspection should be conducted every three (3) years using the methodology in FAA AC:150/5380-6 and ASTM D5430. The next scheduled detailed visual inspection should take place during 2009.

In addition, as part of the FAA-mandated pavement maintenance management program, a drive-by inspection must be conducted monthly to detect unforeseen or abrupt changes in pavement condition that have occurred since the last monthly inspection. Additionally, any maintenance activities completed during the previous month should be noted. The results of each drive-by inspection should be recorded and kept on file for five (5) years.

This inspection can easily be accomplished by driving your airport and recording your observations on the “Monthly Drive-By Inspection Form” provided as Figure DO-7. Each drive-by inspection should note the date of the inspection, any change in pavement condition, and an indication of any maintenance performed since the last drive-by inspection. A copy of each drive-by inspection report should be sent to Mr. William P. Statham at the Idaho Division of Aeronautics, P.O. Box 7129, Boise, ID 83709.

Figure DO-6. Five-Year Pavement Management Plan. Downey Airport (Hyde Memorial)



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Drawing Date: November 2006

RECORD KEEPING

As part of the FAA-mandated pavement maintenance management program, you must record and keep on file for a minimum of five (5) years, complete information about all detailed pavement inspections and maintenance performed. The types of distress, their locations, and remedial actions, scheduled or performed, must be documented. The minimum information to be recorded is:

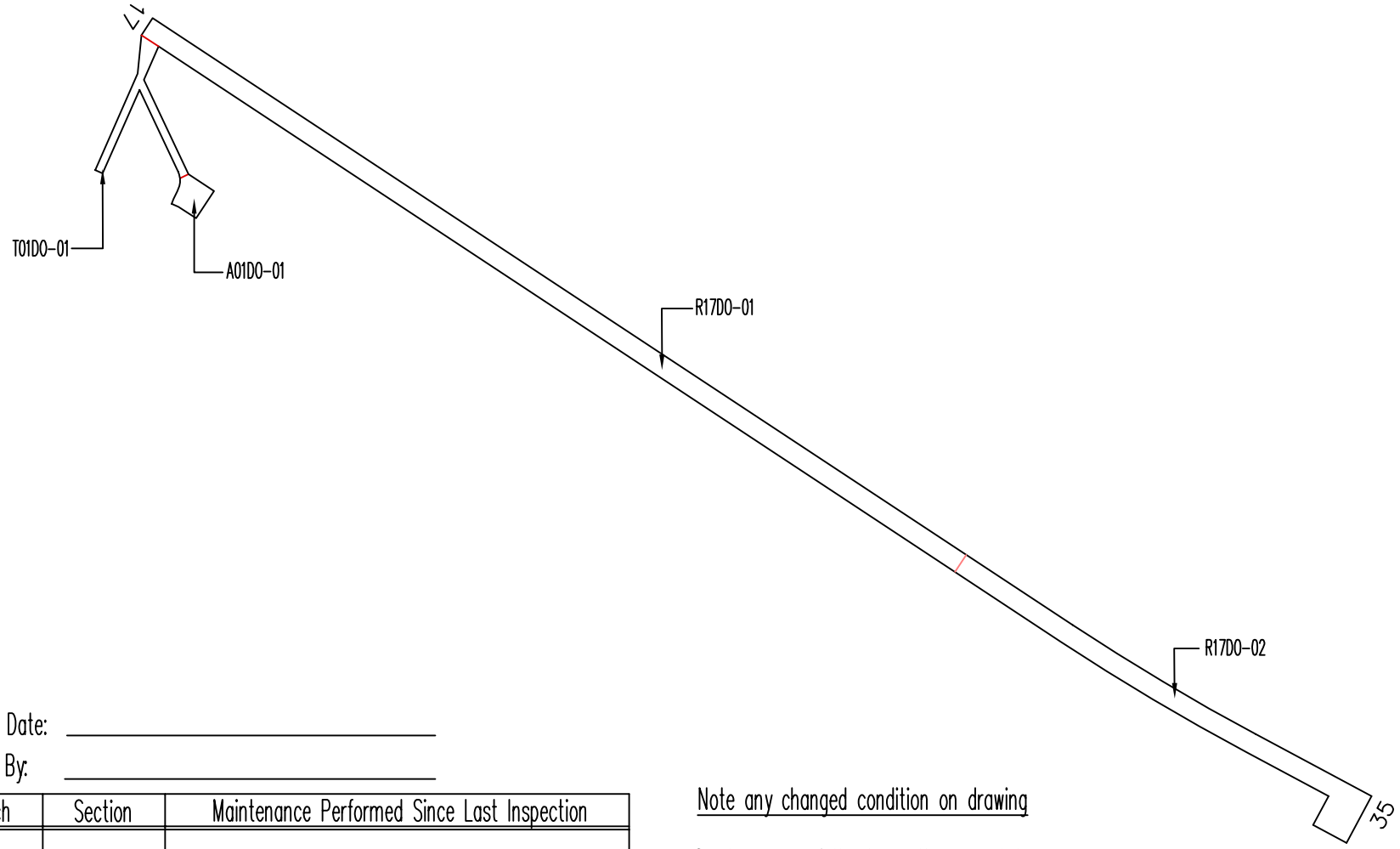
- Inspection date
- Location of pavement distress
- Distress types observed
- Type of maintenance scheduled or performed
- Date maintenance was performed

It would be useful to maintain documentation as to the type of maintenance completed such as engineering reports, drawings and specifications.

Note that you may use any form or record keeping you deem appropriate so long as the information and records produced by the pavement survey can be retrieved as necessary for any reports required by the FAA.

This report fulfills FAA's record keeping requirements. Additionally, this report and any subsequent information compiled by you will form the basis of the next detailed inspection and evaluation.

Figure DO-7. Monthly Drive-By Inspection Form
Downey Airport (Hyde Memorial)



Inspection Date: _____

Inspected By: _____

Branch	Section	Maintenance Performed Since Last Inspection

Note any changed condition on drawing

Send a copy of the inspection report to:

Willaims P. Statham, Idaho Division of Aeronautics
P.O. Box 7129 / Boise, ID 83707-1129
Fax: (208) 334-8789

TABLE DO-1. PAVEMENT HISTORY REPORT

Airport Name: Downey Page: 1 of: 2

Date Prepared: 1-Feb-07

Feature No.	Soil Class	Subgrade Class	CBR	Subgrade Prep.	Frost Course	Subbase Course	Base Course	Surface Course	Overlay Course	Surface Treatment	Crack Seal
	Project Number			Date							
R17DO 1							6" Aggregate	Double BST			
	State/Local			1964							
R17DO 1										Chip Seal	Crack Seal
	Sponsor			1969							
R17DO 1										Chip Seal	Crack Seal
	State/Local			Aug-87							
R17DO 1										Fog Seal	Crack Seal
	Unknown			1994							
R17DO 1											Crack Seal
	Unknown			1996							
R17DO 1										Fog Seal	Crack Seal
	Unknown			1999							
R17DO 1											Crack Seal
	Unknown			2004							
R17DO 1										Seal Coat	
	Unknown			2005							
R17DO 2							6" Aggregate	Double BST			
	State/Local			1977							
R17DO 2										Chip Seal	Crack Seal
	State/Local			Aug-87							
R17DO 2										Fog Seal	Crack Seal
	Unknown			1994							
R17DO 2											Crack Seal
	Unknown			1996							
R17DO 2										Fog Seal	Crack Seal
	Unknown			1999							
R17DO 2											Crack Seal
	Unknown			2004							
R17DO 2										Seal Coat	
	Unknown			2005							

TABLE DO-1. PAVEMENT HISTORY REPORT

Airport Name: Downey Page: 2 of: 2
Date Prepared: 1-Feb-07

Feature No.	Soil Class	Subgrade Class	CBR	Subgrade Prep.	Frost Course	Subbase Course	Base Course	Surface Course	Overlay Course	Surface Treatment	Crack Seal
	Project Number			Date							
T01DO							6" Aggregate	2" AC			
	State/Local			1986							
T01DO										Fog Seal	
	Sponsor			1994							
T01DO										Fog Seal	Crack Seal
	Unknown			1999							
T01DO											Crack Seal
	Unknown			2004							
T01DO										Seal Coat	
	Unknown			2005							
A01DO							6"	2" AC			
	Unknown			1986							
A01DO										Fog Seal	
	Unknown			1994							
A01DO										Fog Seal	Crack Seal
	Unknown			1999							
A01DO											Crack Seal
	Unknown			2004							
A01DO										Seal Coat	
	Unknown			2005							

Branch Condition Report

Pavement Database: NetworkID: DOWNEY

Branch ID	Number of Sections	Sum Section Length (Ft)	Avg Section Width (Ft)	True Area (SqFt)	Use	Average PCI	PCI Standard Deviation	Weighted Average PCI
A01DO (Apron 01 Downey)	1	80.00	75.00	6,186.00	APRON	18.00	0.00	18.00
R17DO (Runway 17/35 Downey)	2	3,550.00	50.00	184,950.00	RUNWAY	62.50	2.50	61.77
T01DO (Taxiway 01 Downey)	1	587.00	20.00	13,056.00	TAXIWAY	29.00	0.00	29.00

Branch Condition Report

Pavement Database:

Use Category	Number of Sections	Total Area (SqFt)	Arithmetic Average PCI	Average PCI STD.	Weighted Average PCI
APRON	1	6,186.00	18.00	0.00	18.00
RUNWAY	2	184,950.00	62.50	2.50	61.77
TAXIWAY	1	13,056.00	29.00	0.00	29.00
All	4	204,192.00	43.00	19.96	58.35

Date: 5 /18/2007

Section Condition Report

Pavement Database: *NetworkID: DOWNEY*

Branch ID	Section ID	Last Const. Date	Surface	Use	Rank	Lanes	True Area (SqFt)	Last Inspection Date	Age At Inspection	PCI
A01DO (Apron 01 Downey)	01	09/02/1986	AC	APRON	P	0	6,186.00	11/05/2006	20	18.00
R17DO (Runway 17/35 Downey)	01	08/02/1987	X	RUNWAY	P	0	119,500.00	11/05/2006	19	60.00
R17DO (Runway 17/35 Downey)	02	08/02/1987	X	RUNWAY	P	0	65,450.00	11/05/2006	19	65.00
T01DO (Taxiway 01 Downey)	01	09/02/1986	AC	TAXIWAY	P	0	13,056.00	11/05/2006	20	29.00

Section Condition Report

Pavement Database:

Age Category	Average Age At Inspection	Total Area (SqFt)	Number of Sections	Arithmetic Average PCI	PCI Standard Deviation	Weighted Average PCI
16-20	**19.50**	**204,192.00**	**4**	**43.00**	**19.96**	**58.35**
All	**19.50**	**204,192.00**	**4**	**43.00**	**19.96**	**58.35**

Re-inspection Report

idaho2006
Report Generated Date: 5/18/2007
Site Name:

Network: DOWNEY Name: DOWNEY AIRPORT (HYDE MEMORIAL)

Branch: A01DO Name: Apron 01 Downey Use: APRON Area: 6,186.00SqFt

Section: 01 of 1 From: Taxiway 01 To: Hangar Last Const.: 9/2/1986
Surface: AC Family: Idaho AC Aprons Zone: U58 Category: 5 Rank: P
Area: 6,186.00SqFt Length: 80.00Ft Width: 75.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date11/5/2006 Total Samples: 1 Surveyed: 1
Conditions: PCI:18.00 |

Sample Number: 01 Type: R Area: 6,186.00SqFt PCI = 18

41	ALLIGATOR CRACKING	M	1,236.99 SqFt
50	PATCHING	L	1,749.99 SqFt
52	WEATHERING/RAVELING	L	1,854.98 SqFt
52	WEATHERING/RAVELING	M	1,854.98 SqFt
52	WEATHERING/RAVELING	H	50.00 SqFt
45	DEPRESSION	L	115.00 SqFt

Re-inspection Report

idaho2006
Report Generated Date: 5/18/2007
Site Name:

Network: DOWNEY Name: DOWNEY AIRPORT (HYDE MEMORIAL)

Branch: R17DO Name: Runway 17/35 Downey Use: RUNWAY Area: 184,950.00SqFt

Section: 01 of 2 From: Runwy 17 End To: Section 02 Last Const.: 8/2/1987
Surface: X Family: Idaho X Runways Zone: U58 Category: 5 Rank: P
Area: 119,500.00SqFt Length: 2,390.00Ft Width: 50.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date11/5/2006 Total Samples: 24 Surveyed: 5
Conditions: PCI:60.00 |

Sample Number: 01 Type: R Area: 5,000.00SqFt PCI = 59
43 BLOCK CRACKING L 4,999.96 SqFt
53 RUTTING L 100.00 SqFt

Sample Number: 07 Type: R Area: 5,000.00SqFt PCI = 59
43 BLOCK CRACKING L 4,999.96 SqFt
53 RUTTING L 100.00 SqFt

Sample Number: 13 Type: R Area: 5,000.00SqFt PCI = 59
43 BLOCK CRACKING L 4,999.96 SqFt
53 RUTTING L 100.00 SqFt

Sample Number: 18 Type: R Area: 5,000.00SqFt PCI = 59
43 BLOCK CRACKING L 4,999.96 SqFt
53 RUTTING L 75.00 SqFt

Sample Number: 24 Type: R Area: 4,500.00SqFt PCI = 64
43 BLOCK CRACKING L 4,499.96 SqFt

Re-inspection Report

idaho2006
Report Generated Date: 5/18/2007
Site Name:

Network: DOWNEY Name: DOWNEY AIRPORT (HYDE MEMORIAL)

Branch: R17DO Name: Runway 17/35 Downey Use: RUNWAY Area: 184,950.00SqFt

---

Section: 02 of 2 From: Section 01 To: Runway 35 End Last Const.: 8/2/1987
Surface: X Family: Idaho X Runways Zone: U58 Category: 5 Rank: P
Area: 65,450.00SqFt Length: 1,160.00Ft Width: 50.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date11/5/2006 Total Samples: 13 Surveyed: 4
Conditions: PCI:65.00 |

Sample Number: 02 Type: R Area: 5,000.00SqFt PCI = 52

41	ALLIGATOR CRACKING	L	300.00 SqFt
48	LONGITUDINAL/TRANSVERSE CRACKING	L	240.06 Ft
53	RUTTING	L	200.00 SqFt

Sample Number: 06 Type: R Area: 5,000.00SqFt PCI = 70

43	BLOCK CRACKING	L	1,599.99 SqFt
48	LONGITUDINAL/TRANSVERSE CRACKING	L	212.05 Ft

Sample Number: 10 Type: R Area: 5,000.00SqFt PCI = 67

43	BLOCK CRACKING	L	300.00 SqFt
48	LONGITUDINAL/TRANSVERSE CRACKING	L	709.18 Ft

Sample Number: 13 Type: R Area: 7,440.00SqFt PCI = 68

43	BLOCK CRACKING	L	3,023.97 SqFt
48	LONGITUDINAL/TRANSVERSE CRACKING	L	194.05 Ft

Re-inspection Report

idaho2006
Report Generated Date: 5/18/2007
Site Name:

Network: DOWNEY Name: DOWNEY AIRPORT (HYDE MEMORIAL)

Branch: T01DO Name: Taxiway 01 Downey Use: TAXIWAY Area: 13,056.00SqFt

Section: 01 of 1 From: Runway 17 To: Apron 01 Last Const.: 9/2/1986
Surface: AC Family: Idaho AC Taxiways Zone: U58 Category: 5 Rank: P
Area: 13,056.00SqFt Length: 587.00Ft Width: 20.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date11/5/2006 Total Samples: 3 Surveyed: 3
Conditions: PCI:29.00 |

Sample Number: 01 Type: R Area: 4,095.00SqFt PCI = 23

41	ALLIGATOR CRACKING	M	639.99 SqFt
45	DEPRESSION	L	100.00 SqFt
48	LONGITUDINAL/TRANSVERSE CRACKING	M	43.01 Ft
52	WEATHERING/RAVELING	L	818.99 SqFt

Sample Number: 02 Type: R Area: 4,000.00SqFt PCI = 25

41	ALLIGATOR CRACKING	M	525.00 SqFt
45	DEPRESSION	L	16.00 SqFt
48	LONGITUDINAL/TRANSVERSE CRACKING	M	78.02 Ft
52	WEATHERING/RAVELING	L	799.99 SqFt
53	RUTTING	L	400.00 SqFt

Sample Number: 03 Type: R Area: 4,961.00SqFt PCI = 38

41	ALLIGATOR CRACKING	M	518.00 SqFt
48	LONGITUDINAL/TRANSVERSE CRACKING	M	230.06 Ft

Section: R17DO-01
Block Cracking

Section: R17DO-02
Block Cracking,
Longitudinal/ Transverse Cracking

Section: T01DO-01
Alligator Cracking
Longitudinal/ Transverse Cracking
Weathering/ Raveling

Section: A01DO-01
Weathering/ Raveling
Alligator Cracking
Patching

NETWORK MAINTENANCE REPORT
DOWNEY AIRPORT (HYDE MEMORIAL)

Network	Branch	Section	Distress	Severity	Distress Quantity	Units	Action	Maint. Quantity	Units	Unit Cost	Total Cost
DOWNEY	A01DO	1	ALLIGATOR CR	M	1,237.00	SQFT	Patching - AC Deep	1,382.50	SqFt	$2.60	$3,594.63
DOWNEY	A01DO	1	DEPRESSION	L	115	SQFT	No Localized M & R	162.2	SqFt	$0.00	$0.00
DOWNEY	A01DO	1	PATCHING	L	1,750.00	SQFT	No Localized M & R	1,922.40	SqFt	$0.00	$0.00
DOWNEY	A01DO	1	WEATH/RAVEL	H	50	SQFT	Patching - AC Shallow	50	SqFt	$1.30	$65.00
DOWNEY	A01DO	1	WEATH/RAVEL	L	1,855.00	SQFT	No Localized M & R	1,855.00	SqFt	$0.00	$0.00
DOWNEY	A01DO	1	WEATH/RAVEL	M	1,855.00	SQFT	No Localized M & R	1,855.00	SqFt	$0.00	$0.00
										Total	$3,659.63
DOWNEY	R17DO	1	BLOCK CR	L	119,499.00	SQFT	No Localized M & R	119,499.00	SqFt	$0.00	$0.00
DOWNEY	R17DO	1	RUTTING	L	1,830.00	SQFT	No Localized M & R	1,829.10	SqFt	$0.00	$0.00
										Total	$0.00
DOWNEY	R17DO	2	ALLIGATOR CR	L	875	SQFT	No Localized M & R	998.1	SqFt	$0.00	$0.00
DOWNEY	R17DO	2	BLOCK CR	L	14,362.00	SQFT	No Localized M & R	14,361.50	SqFt	$0.00	$0.00
DOWNEY	R17DO	2	L & T CR	L	3,954.00	FT	No Localized M & R	12,969.50	SqFt	$0.00	$0.00
DOWNEY	R17DO	2	RUTTING	L	584	SQFT	No Localized M & R	583.3	SqFt	$0.00	$0.00
										Total	$0.00
DOWNEY	T01DO	1	ALLIGATOR CR	M	1,683.00	SQFT	Patching - AC Deep	1,852.10	SqFt	$2.60	$4,815.48
DOWNEY	T01DO	1	DEPRESSION	L	116	SQFT	No Localized M & R	163.3	SqFt	$0.00	$0.00
DOWNEY	T01DO	1	L & T CR	M	352	FT	Crack Sealing - AC	351.1	Ft	$1.50	$526.64
DOWNEY	T01DO	1	RUTTING	L	400	SQFT	No Localized M & R	400	SqFt	$0.00	$0.00
DOWNEY	T01DO	1	WEATH/RAVEL	L	1,619.00	SQFT	No Localized M & R	1,619.00	SqFt	$0.00	$0.00
										Total	$5,342.12
										TOTAL	$9,001.75